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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | ATTORNEY DOCKET NO. CONFIRMATION NO. | |
|--|------------------|----------------------|---------------------|--------------------------------------|--|
| 10/712,032 | 11/14/2003 | Takaci Sasaki | 101136-00101 7514 | | |
| 7590 03/03/2005 | | | EXAMINER | | |
| ARENT FOX KINTNER PLOTKIN & KAHN, PLLC | | | KORNAKOV. MICHAIL | | |
| SUITE 400 1050 CONNECTICUT AVENUE, N.W. | | | ART UNIT | PAPER NUMBER | |
| WASHINGTON | N, DC 20036-5339 | | 1746 | | |

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | |
|---|--|---|--|
| | 10/712,032 | SASAKI ET AL. | |
| Office Action Summary | Examiner | Art Unit | |
| | Michael Komakov | 1746 | |
| The MAILING DATE of this communication app Period for Reply | pears on the cover sheet with the c | correspondence address | |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period vortices are reply within the set or extended period for reply will, by statute. Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be ting within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133). | |
| Status | | | |
| 3) Since this application is in condition for allowar | action is non-final. nce except for formal matters, pro | | |
| closed in accordance with the practice under E | x parte Quayle, 1935 C.D. 11, 4 | 53 O.G. 213. | |
| Disposition of Claims | | | |
| 4) Claim(s) 11-14 is/are pending in the application 4a) Of the above claim(s) 11 and 12 is/are with 5) Claim(s) is/are allowed. 6) Claim(s) 13 and 14 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or | drawn from consideration. | | |
| Application Papers | | • | |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on 14 November 2003 is/a Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction of the original than the correction of the correction of the original than the correction of the original than the correction of | re: a) \square accepted or b) \boxtimes object drawing(s) be held in abeyance. Section is required if the drawing(s) is object. | e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d). | |
| Priority under 35 U.S.C. § 119 | | | |
| a) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of | s have been received. s have been received in Applicati ity documents have been receive (PCT Rule 17.2(a)). | on No. <u>09/361,158</u> . ed in this National Stage | |
| Attachment(s) 1) Notice of References Cited (PTO-892) | 4) 🔲 Interview Summary | (PTO-413) | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/14/03. | Paper No(s)/Mail Da | | |

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DETAILED ACTION

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Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - 1. Claims 11,12, drawn to a method of preparing a chromium-containing halftone phase-shift photomask, classified in class 216, subclass 75.
 - II. Claims 13,14, drawn to a chromium-containing half-tone phase-shift photomask, classified in class 430, subclass 56.

The inventions are distinct, each from the other because of the following reasons:

- 2. Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the claimed chromium-containing half-tone phase-shift photomask can be made by wet etching, which is materially different from the recited dry etching technique.
- 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
- 4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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5. During a telephone conversation with Mr. R. Carpenter, esq., on 02/24/2005 a provisional election was made with traverse to prosecute the invention of Group II, claims 13 and 14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11 and 12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

7. Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Specification

8. The disclosure is objected to because of the following informalities: The instant Abstract recites dry etching method with the certain processing steps, while the instant claims are related to the article. Therefore, appropriate correction of the Abstract, better reflecting the instant invention is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly

claiming the subject matter, which the applicant regards as his invention.

10. Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recited in claims 13 and 14 the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102/35 USC § 103

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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13. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yokoyama et al (U.S. 5,723,234).

Yokoyama teaches a chromium-containing half-tone phase-shift photomask (col. 6, lines 18-42; paragraph, bridging col.6 and 7; Fig. 4a, 4b,5a,5b), which meets the description of product, recited in the instant claims.

14. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0872767.

EP'767 teaches a chromium-containing half-tone phase-shift photomask (page 20, lines 10-15, paragraph, bridging pages 20 and 21; paragraph, bridging pages 21 and 22; page 22, lines 10-14), which meets the description of product, recited in the instant claims.

The rejections are made in the sense of *In re Thorpe*, 227 USPQ 964 (CAFC 1985), wherein in the product-by-process claims the patentability is based on the product per se, not by the process, which is utilized to manufacture this product. Because of the nature of product-by process claims, the Examiner cannot ordinary focus on the precise difference between the claimed product and the disclosed product. It is then Applicants' burden to prove that an unobvious difference exists. See In re *Marosi*, 218 USPQ 289, 292-293 (CAFC 1983). See also footnote 11 O.G. Notice 1162 59-61, wherein a 35 USC 102/103 rejection is authorized in the case of product-byArt Unit: 1746

porocess claims because the exact identity of the claimed product or the prior art product cannot be determined by the Examiner. Also consult *In re Brown*, 173 USPQ 685 (CCPA 1972), the Court of Customs and Patent Appeals (CCPA) explicitly approved the 102/103 rejection of a product-by-process claim over a reference which showed a product which appeared to be identical or only slightly different from the claimed product.

In the instant case no Graham vs. John Deere analysis was made but rather the test set out in MPEP 706.03(e) and In re Marosi was applied while explaining why the claimed product does not patentably distinguish over the prior art under 35 USC 102/103.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. KOENA 1001

Michael Kornakov Primary Examiner Art Unit 1746

02/28/2005